



MARINE PROTECTED AREAS

Action Plan Summary

MONTEREY BAY NATIONAL MARINE SANCTUARY

THE ISSUE:

Scientific research has shown that carefully crafted marine protected areas (MPAs) – particularly those that restrict or prohibit the removal of marine life - can be effective tools for conserving the diversity of animals and plants, protecting habitats, and increasing both numbers and individual sizes of some species. By evaluating sanctuary habitats and resources, and designing and identifying potential locations for new MPAs, we will determine if MPAs can provide more effective ecosystem protection for the Monterey Bay National Marine Sanctuary (MBNMS). The design and location of new MPAs will take into consideration ecological factors, as well as reflect the importance of allowing for the continuation of long-term sustainable fisheries, an important cultural and economic activity in the sanctuary.

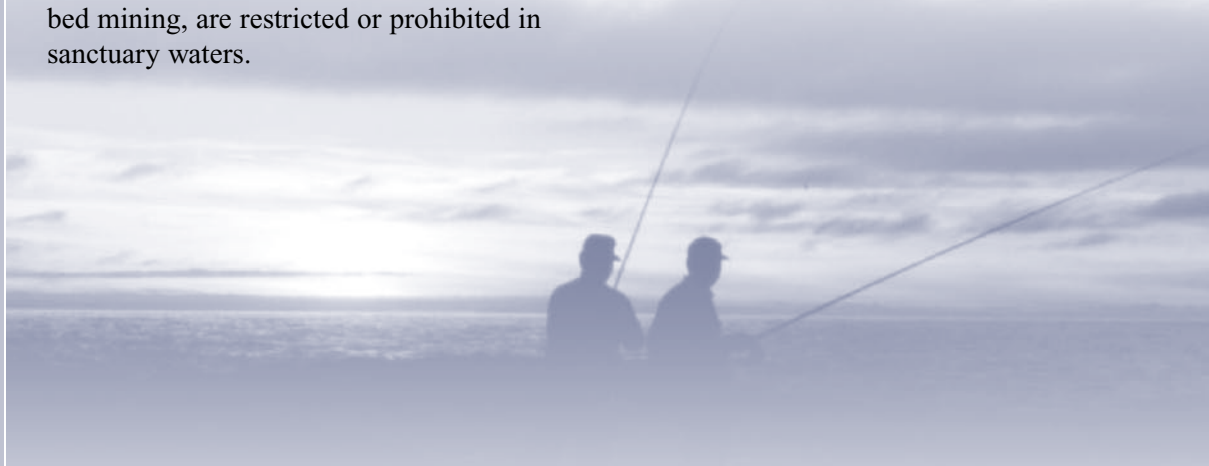
OUR GOAL

The sanctuary's goal is to determine if additional MPAs, in which the removal or alteration of marine life is restricted or prohibited, may play a role in effective marine conservation and management of the sanctuary. With our partners, we will evaluate whether additional MPAs could help protect, restore or enhance natural habitats, populations and ecological processes, and will design potential MPA networks with these goals in mind. If new MPAs are considered appropriate, their design and location will reflect the importance of allowing for the continuation of long-term sustainable fisheries, since fishing is an important cultural and economic activity in the sanctuary.

BACKGROUND INFORMATION

“**Marine protected area**” is an umbrella term for a managed area in the marine environment that provides some level of **resource protection**. As a type of management tool, MPAs may employ a range of strategies to protect the marine environment - from prohibiting the harvesting of marine life, allowing **take** of selected species, or restricting other kinds of human activities. Besides having different levels of protection and use, MPAs vary dramatically in size and shape, protect a variety of natural or cultural resources, and are established under a variety of authorities. The MBNMS is a marine protected area itself, as some human activities that could harm the sanctuary's health, such as oil drilling, ocean dumping or seabed mining, are restricted or prohibited in sanctuary waters.

MPA is not the only term used to describe marine areas with different goals or levels of protection. Often a variety of related terms are used, such as marine park, marine preserve, marine reserve, national marine sanctuary, national seashore, etc. One common misconception is that all MPAs are “no-take” marine reserves closed to public use. In fact, most MPAs, like the Monterey Bay National Marine Sanctuary, are managed for multiple uses. Currently less than 1% of the world's oceans and less than 0.01% of US waters are encompassed by no-take marine reserves. Within the MBNMS, three, small no-take reserves have been designated by the state of California, comprising less than 0.01% of sanctuary waters.



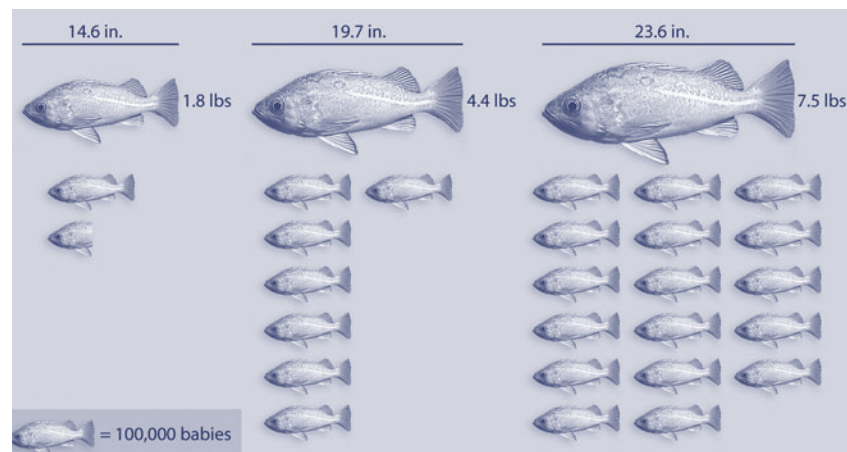
A well-designed MPA, in which the removal or alteration of marine life is prohibited or restricted, generally contains a greater abundance of species, higher diversity of species, and larger fish within its boundaries relative to similar habitats outside the protected area. These larger fish produce many more young than do smaller fish, and for some species, their young are also healthier and more likely to survive. MPAs are a useful tool for preventing, slowing, or reversing the degradation of ocean habitats and maintaining the diversity and abundance of species inhabiting them.

Because ocean ecosystems worldwide are being negatively altered by human activities (such as pollution, fishing, or coastal development), the public, governmental agencies, scientists, conservation organizations, and commercial groups are

increasingly discussing the idea of establishing new, well-designed MPAs to complement existing ocean management.

In the United States, both the **US Commission on Ocean Policy** and **Pew Oceans Commission** recently declared that ocean health is degraded, and are calling for MPAs to be used as a management tool to support the protection of ocean ecosystems. Interest in implementing a system of marine protected areas is increasing in California too. The 1999 **Marine Life Protection Act (MLPA)** mandated the state to design and manage an improved network of marine protected areas to protect marine life and habitats, marine ecosystems, and marine natural heritage. Currently the California Resources Agency and California Department of Fish and Game are partnering with others to achieve the goals of the MLPA.

Scientific research has indicated that carefully crafted MPAs can be effective tools for conservation of biodiversity and habitats.



Larger rockfish produce more young.

Similar to the MLPA effort in state waters (within three nautical miles of shore), the MBNMS is also considering using marine protected areas as management tool in federal waters (beyond three nautical miles). The MBNMS is considering the need for MPAs and their potential locations for several reasons:

1 To restore naturally functioning ecosystems and ecological health in sanctuary waters. For example, many millions of bocaccio, a large and long-lived predatory rockfish, have been harvested from deep-water habitats within the sanctuary over the past few decades. Overharvesting has caused their population to plummet to below 8% of their original abundance. When severe declines of an important species like this occur, fishery management agencies must take drastic measures to recover the population. Such depleted populations not only have serious consequences for the health of the region's fisheries, but for the well-being and integrity of the ecosystems in which they reside.

2 To provide areas where marine research and monitoring can occur apart from the extraction of animals and plants. Only a small percentage (less than 0.01%) of the

sanctuary contains areas where extractive activities are restricted, affording complete protection. The sanctuary features a wide array of habitats, from wave-swept rocky shores to deep submarine canyons. Without having representative habitats protected in their natural state, free from human harvest or extraction, it is difficult for resource managers and researchers to distinguish between human-induced and natural changes in the ecosystem.

3 To provide ecological 'insurance' against environmental variability and unintentional mismanagement by humans. Natural changes to the environment occur in the ocean, just as they do on land. If biological communities are substantially altered by humans, their ability to resist or recover from environmental change or natural disturbance is compromised.

THE SANCTUARY'S ACTION PLAN

The sanctuary's "Marine Protected Areas" action plan was developed jointly with a working group comprised of a variety of stakeholders and partners to ensure community involvement in the decision-making process. Sanctuary staff have been meeting regularly with stakeholders since 2002, including environmental representatives, researchers, fishermen, fishery managers, harbor masters, divers, and others. This group, along with the Sanctuary Advisory Council, will provide key advice on future decisions regarding the need for MPAs and their potential locations within the Monterey Bay National Marine Sanctuary. The action plan includes, the following components:

- Forming partnerships with stakeholders and other agencies to facilitate plan implementation
- Developing clear goals and identifying the habitats or ecological processes that could benefit from increased protection
- Developing criteria for the effective design of MPAs considering biological factors, human use patterns, size and scale and practical implementation issues
- Determining the types of allowed use
- Conducting socioeconomic impact analyses and identifying mitigation efforts
- Integrating MPAs with other ocean management measures and agencies
- Developing programs for enforcement and compliance, education and outreach, and research and monitoring
- Determining timing strategies, phasing options and evaluation criteria

If the working group ultimately recommends the establishment and location of new MPAs, and sanctuary management concurs with the recommendation, MPAs could be implemented in the future through a variety of mechanisms and agencies. Depending upon their final design, the implementation of new MPAs could draw on authorities of various state and federal authorities under the **Magnuson-Stevens Fishery Conservation and Management Act**, the **National Marine Sanctuaries Act**, the **Marine Life Protection Act** or the **Marine Managed Areas Improvement Act**.

The sanctuary's working group is focusing in 2005-2006 on the consideration of MPAs in federal waters (beyond three nautical miles). Sanctuary managers prefer the designation of new MPAs in state waters (within three nautical miles) be done under the authority of the California Fish and Game Commission, through the MLPA process. Therefore sanctuary staff and MPA working group members are actively participating in the MLPA process led by the California Resources Agency. Sanctuary staff and the MLPA team are working together and coordinating efforts, ensuring the MLPA process for state waters and sanctuary MPA process for federal waters support each other and share resources for optimal results.

For a complete listing of the sanctuary's "Marine Protected Areas Action Plan" please visit http://sanctuaries.nos.noaa.gov/jointplan/m_reptoad.html and scroll down the page.

GLOSSARY

Magnuson-Stevens Fishery

Conservation and Management Act:

A federal law to provide for the conservation and management of our nation's fisheries.

Marine Life Protection Act:

State legislation requiring the Department of Fish and Game to plan for the establishment of marine protected areas in California waters in order to protect habitats and preserve ecosystem integrity.

Marine Managed Areas

Improvement Act:

A state law creating a new classification system for Marine Managed Areas (MMA) in California.

Marine Protected Area (MPA):

A managed area in the marine environment that provides some level of resource protection. (Related terms include marine park, marine preserve, marine reserve, national marine sanctuary, national seashore, etc.)

Pew Oceans Commission:

A private, independent panel, sponsored by the Pew Charitable Trust, to report on the state of the oceans and conduct a review of national ocean policy.

Resource Protection:

The reduction or prevention of detrimental human impacts on natural or cultural resources.

Take:

The process of collecting or harvesting marine life.

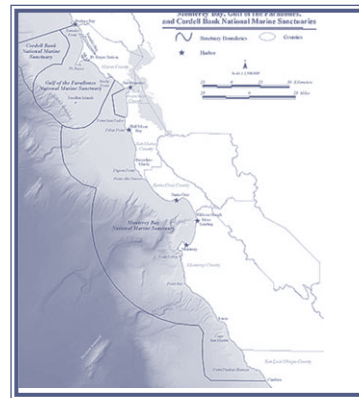
US Commission on Ocean Policy:

A federal panel, appointed by the President, to report on ocean health and develop recommendations for a new and comprehensive national ocean policy.

The Joint Management Plan Review (JMPR)

"Marine Protected Areas" is one of the action plans in the Monterey Bay National Marine Sanctuary Draft Management Plan. The MBNMS Draft Management Plan includes twenty-eight plans that, once finalized, will guide sanctuary management for the next five years. The plan is a revision of the original management plan, adopted with sanctuary designation in 1992, and is focused on how to best understand and protect the sanctuary's resources.

The National Marine Sanctuary Program (NMSP) is updating the management plans for the Cordell Bank, Gulf of the Farallones, and Monterey Bay National Marine Sanctuaries in a process known as the Joint Management Plan Review (JMPR)



How You Can Get Involved in the MBNMS Management Plan Process

The MBNMS welcomes your ideas about important resource management issues in the sanctuary. A Draft Management Plan and Draft Environmental Impact Statement are scheduled for release to the public in 2006. Following their release, hearings will be held in several locations throughout the region to gather public comment. Written comments will be accepted as well. To find out about public hearings, or how to submit written comments, please visit our website at <http://www.sanctuaries.nos.noaa.gov/jointplan>.



Blue Rockfish Photo: MBNMS

Resources

Marine Life Protection Act Initiative <http://www.dfg.ca.gov/mrd/mlpa>

Monterey Bay National Marine Sanctuary <http://montereybay.noaa.gov>

Monterey Bay National Marine Sanctuary: A Review of the Ecological Effectiveness of Subtidal Marine Reserves in Central California

Part 1: Synopsis of Scientific Investigations http://montereybay.noaa.gov/reports/2002/starr1_120402.pdf

Part 2: Summary of Existing Marine Reserves in Central California and their Potential Benefits http://montereybay.noaa.gov/reports/2002/starr2_120402.pdf

NOAA's National Marine Protected Areas Center <http://www.mpa.gov>

Partnership for Interdisciplinary Studies of Coastal Oceans: The Science of Marine Reserves <http://www.piscoweb.org/outreach/pubs/reserves/index.html>

Sanctuary Integrated Monitoring Network (SiMON) <http://www.mbnms-simon.org>

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THE MONTEREY BAY NATIONAL MARINE SANCTUARY

Stretching from Marin to Cambria, the Monterey Bay National Marine Sanctuary encompasses 276 miles of shoreline and 5,322 square miles (4,625 nautical miles) of ocean, extending an average distance of 30 miles from shore. At its deepest point, the sanctuary reaches down 10,663 feet (more than two miles). The sanctuary was established for the purposes of resource protection, research, education, and public use. Its natural resources include one of our nation's largest kelp forest and one of North America's largest underwater canyons. It is home to one of the most diverse marine ecosystems in the world, including 33 marine mammal species, 94 seabird species, 345 fish species, and numerous invertebrates and plants. This remarkably productive marine environment is fringed by spectacular coastal scenery, including sandy beaches, rocky cliffs, rolling hills, and steep mountains.

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